Caltrans
District 12

SOCTIIP Collaborative Meeting

March 24, 2008

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- Overall, the Department applies “context sensitive” solutions in all projects. SMI asserts that it would have been prudent to perform design refinements on the AIP alternative. When considering “context ,” issues such as funding, maintenance feasibility, traffic demand, impact on alternate routes, and impact on safety are considered first.
- Transportation decisions must integrate and balance community, aesthetic, historic, and environmental values with these transportation safety, maintenance, and performance goals. As such, alternative refinements on project alternatives are neither practicable nor typically completed in the planning stage until these context issues are resolved.

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- The SMI Report includes excerpts from the 2006 Orange County Long-Range Transportation Plan (LRTP) that describe "*improvements proposed for the I-5 corridor, many of which were also included in the AIP alternative.*" The SMI report's excerpts are not comprehensive references to the LRTP as SMI failed to draw out or identify that the completion of the southern portion of the Foothill Transportation Corridor and widening of the toll road system to its planned width (Eastern/Foothill Transportation Corridor Agency Project) plays a significant role in the LRTP baseline. As such, the right of way impacts related to the LRTP Interstate 5 (I-5) improvements would be less than the AIP alternative because they do not provide the same capacity benefits. It is important to acknowledge that because LRTP assumes SR-241 in it's baseline analysis and therefore improvements to I-5 are in addition to the SR-241 and not in lieu-of.

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- Design standards used for any project should equal or exceed the minimum standards provided in the Highway Design Manual to the maximum extent feasible.

- California is only one of two states who do not have “sovereign immunity” and is therefore subject to tort liability. With that, exceptions to design standards are reviewed very critically.

- FHWA’s thirteen controlling criteria for the selection of design standards of primary importance for highway safety, and are listed as follows: design speed, lane width, shoulder width, bridge width, horizontal alignment, vertical alignment, grade, stopping sight distance, cross slope, superelevation, horizontal clearance, vertical clearance and bridge structural capacity.

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- Highway Design Manual standards are the minimum standards, and design engineers should pursue higher standards when considering design features. These standards were developed and refined over the years to provide the safest and most operationally effective facilities.

- Engineers face constraints and challenges sometimes requiring a deviation from standards. Such design exceptions must undergo careful analysis to gain District and HQ approvals.

- Since I-5 was originally constructed in the 60's, it's a common practice to upgrade the existing facility to current design standards as much as it is practically feasible.

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- SMI asserts “In the end, however, non-standard-yet safe-features are often approved…” The SMI report is drawing the conclusion that any or all of the non-standard features would be safe before the project is even built.
- What the SMI report is missing is that some of the highway facilities could be designed to fully meet the HDM standards but still does not meet the operational requirements for a given location.
- An example of this situation is a ramp geometric design that might be standard but the overall ramp body lacking the storage capacity to handle the traffic demand. This ramp would experience delay and more accidents and will be rendered as it is operationally deficient.

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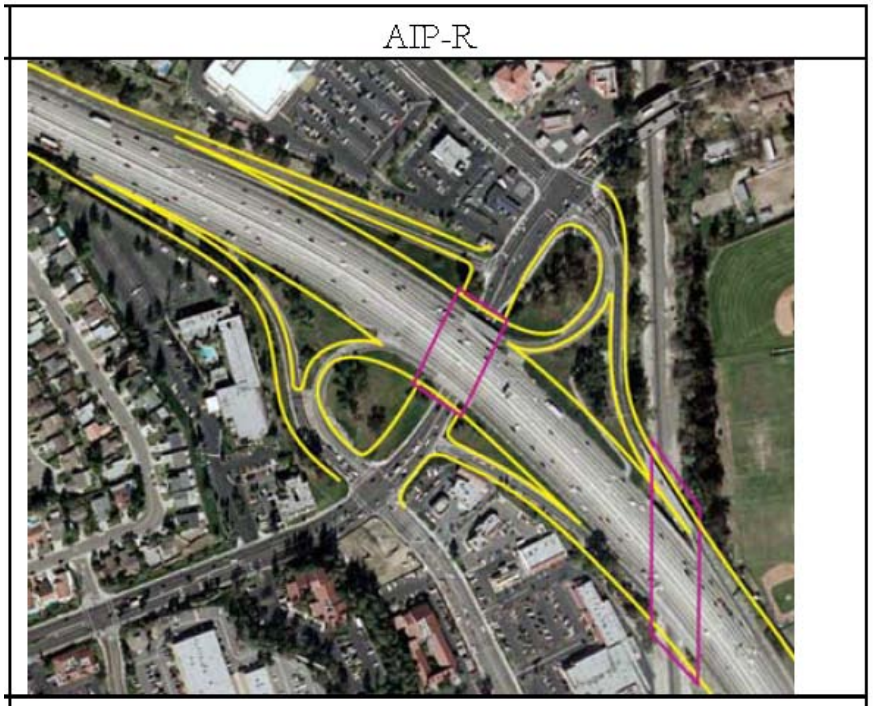
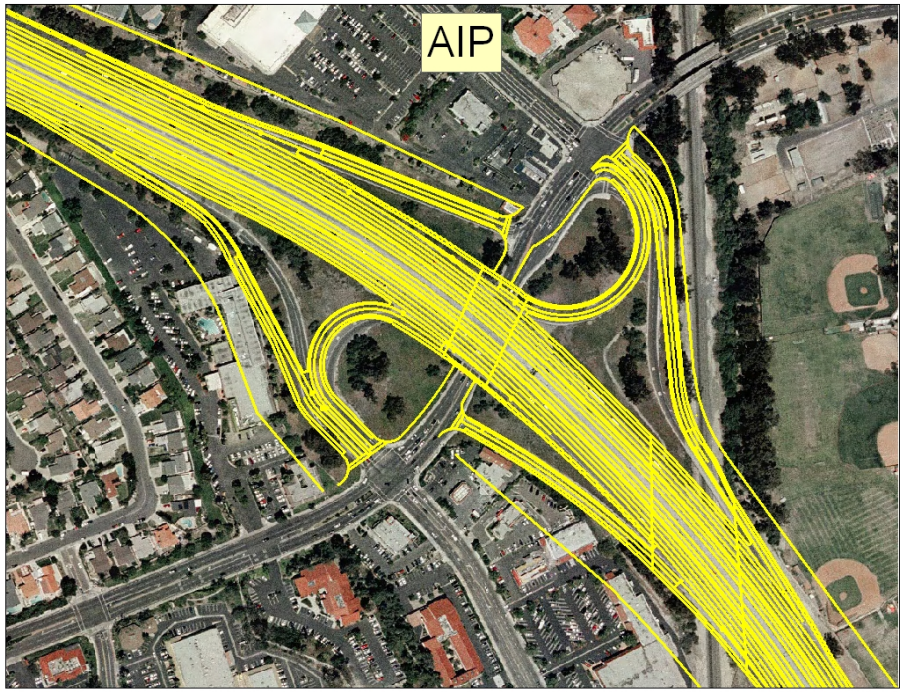
Discussion of AIP I-5 Interchanges:

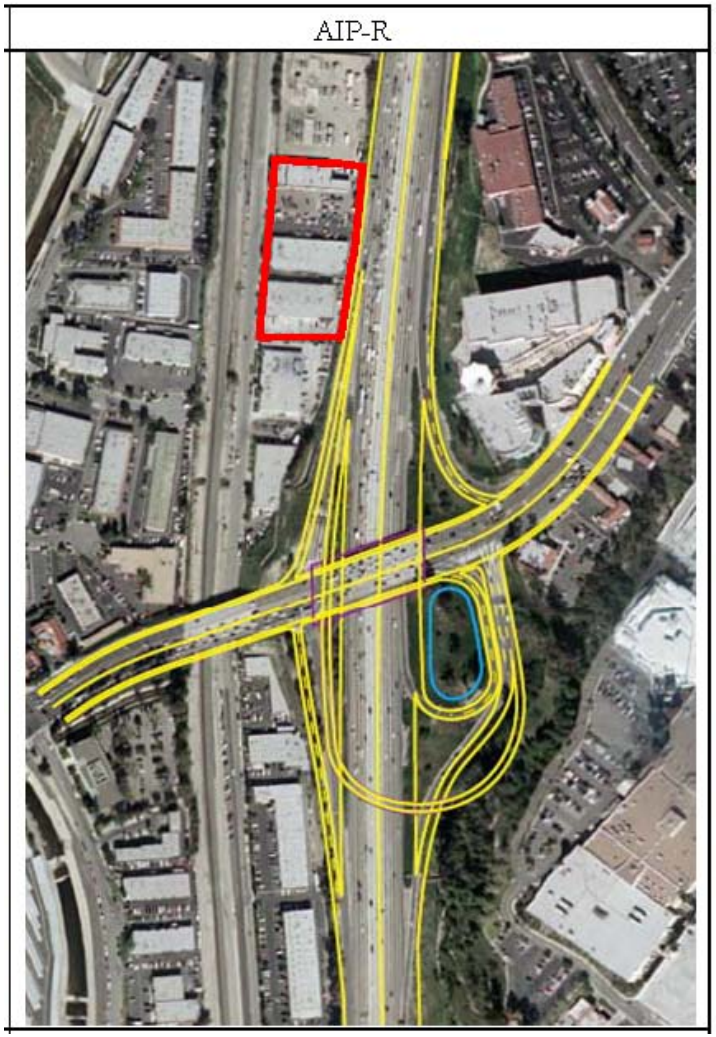
- La Paz
- Crown Valley Parkway
- Ortega Highway
- Pico
- El Camino

La Paz





Crown Valley Parkway



1. Geometric Alignment Concerns S/B Ramp:
   - The required distance between successive off ramps is not accurate;
   - There is not sufficient horizontal or vertical clearance between CVP and I-5 without realignment of vertical profile of CVP, which would create impacts on other ramp terminals.
   - Safety concern as a potential blind horizontal curve follows a steep crest vertical curve.
   - The length of the ramp may not be long enough to achieve all the safety requirements.
2. Would have massive structures that historically Orange County communities have been sensitive about.
3. Noise and visual Impacts
4. Access Control Issues-additional right of way impacts

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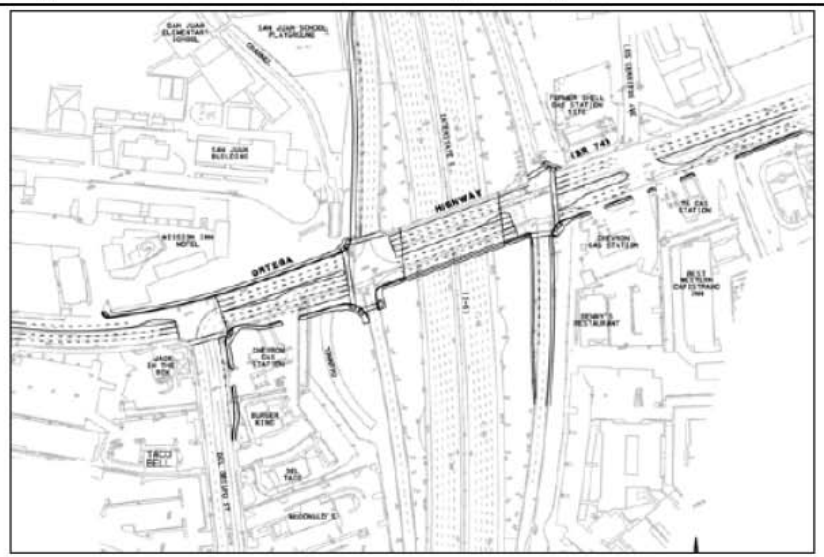
Ortega Highway

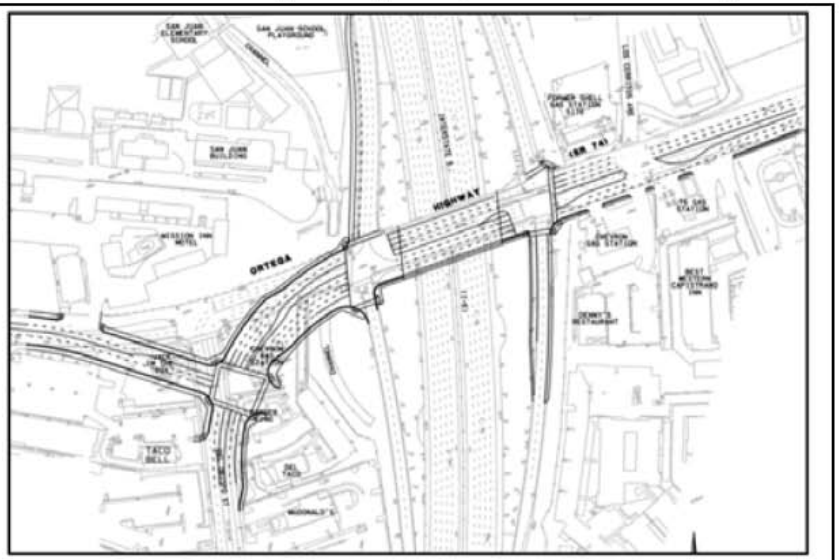
two possible design concepts for this interchange that have been approved by CalTrans, and could be adapted for the AIP-R.

rently, the City of San Juan Capistrano is stud ernatives with far fewer impacts. Figure 9 below show drawings from the City of San Juan Capistrano website[17] of two possible design concepts for this interchange that have been approved by CalTrans, and could be adapted for the AIP-R. Either one of the above alternatives will result in far fewer property impacts than those described in the SEIR, and can be adapted to the I-5 improvements included in the AIP-R.

Figure 9: Current Interchange Improvement Alternatives for the Ortega Highway/I-5 Interchange

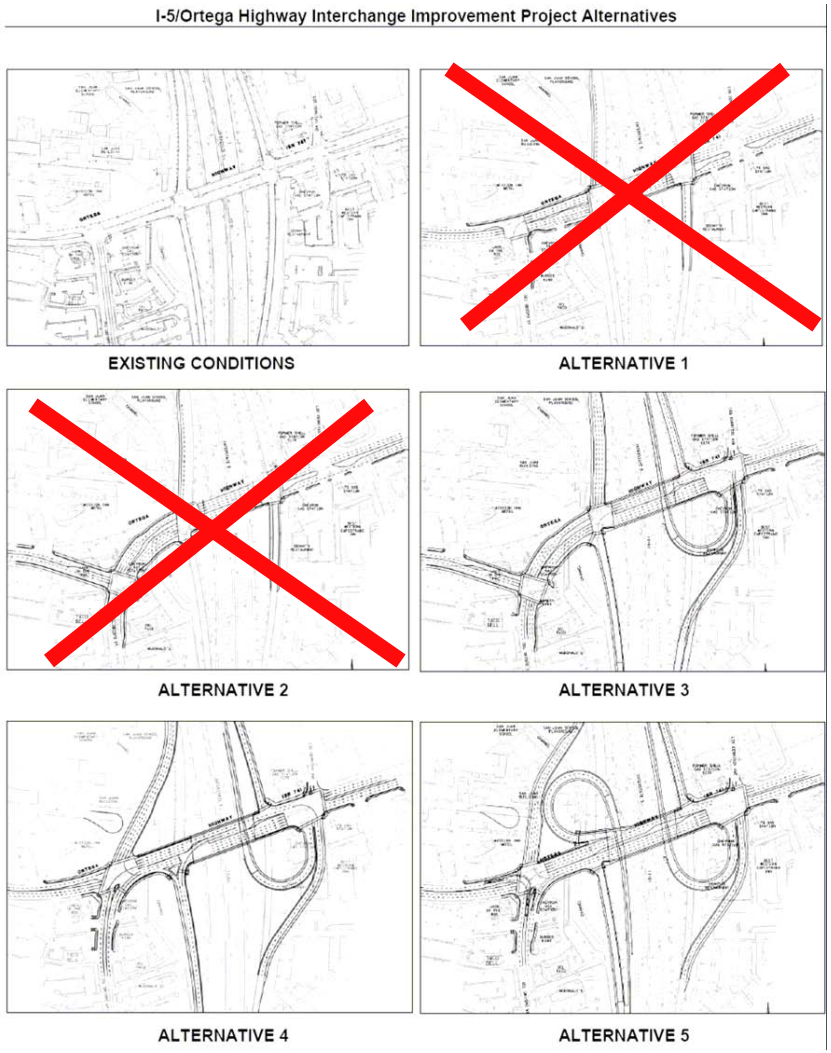


ALTERNATIVE 1



ALTERNATIVE 2

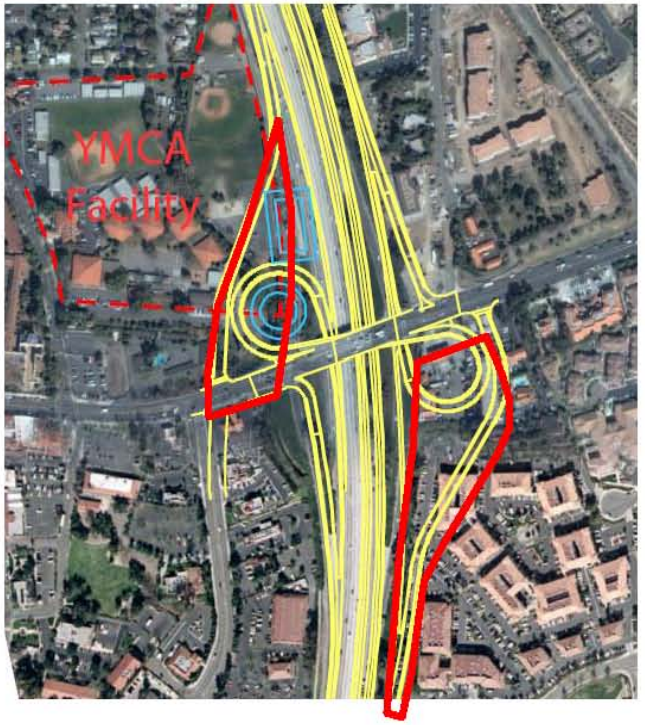
Ortega Highway



Ortega Highway

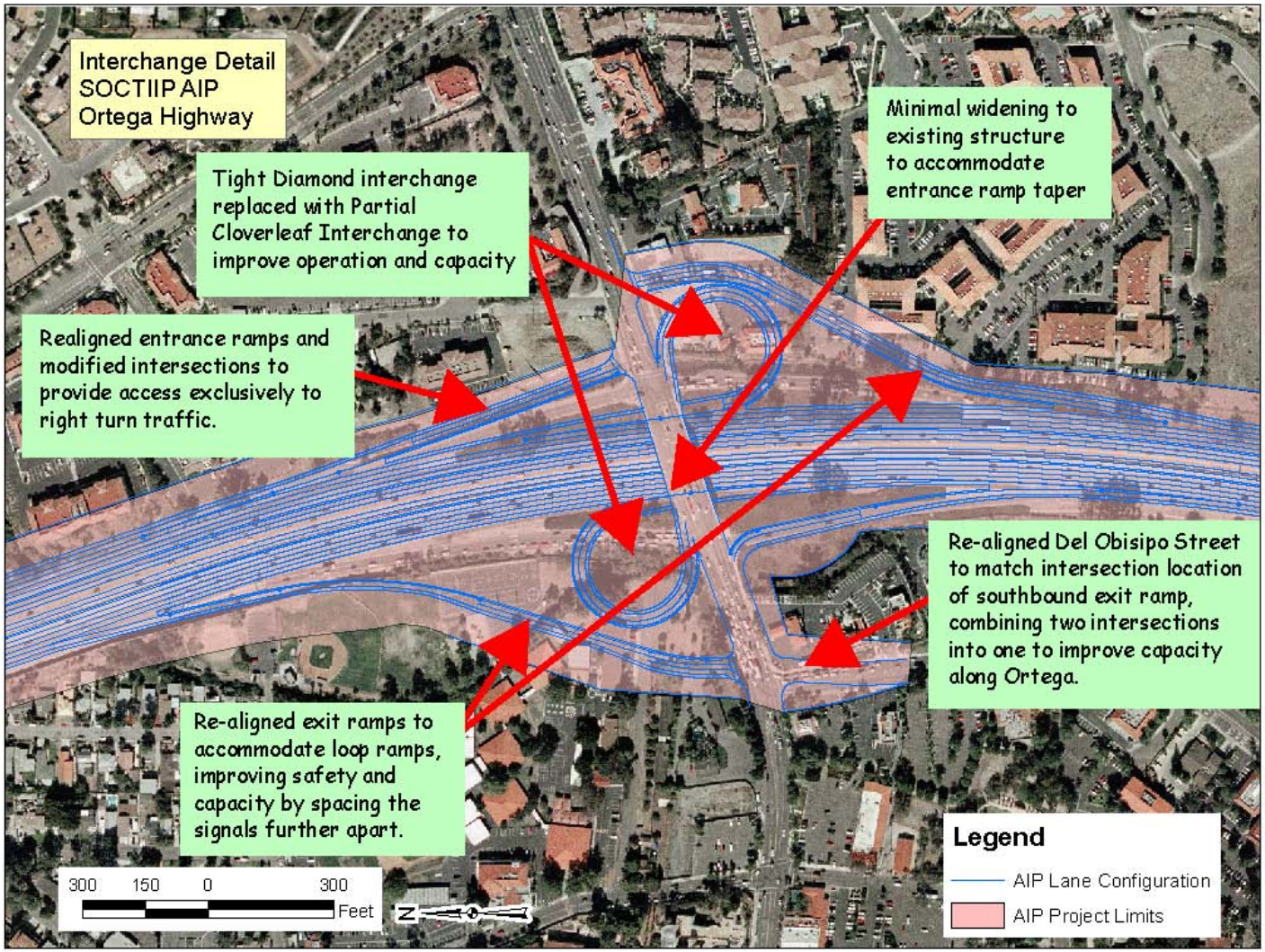
Instead of the smaller footprint alternatives shown above, the AIP-SEIR proposes a large partial cloverleaf design for this interchange, shown in Figure 10 to the right. This is a highly inappropriate for this location, and results in massive impacts to private properties and community recreational resources. In fact, the SEIR states that the concept shown at right was considered by the City, but was not selected for further development. Therefore, the AIP-SEIR proposal for this interchange is inconsistent with local plans.

Figure 10: Ortega Parkway Interchange AIP-SEIR

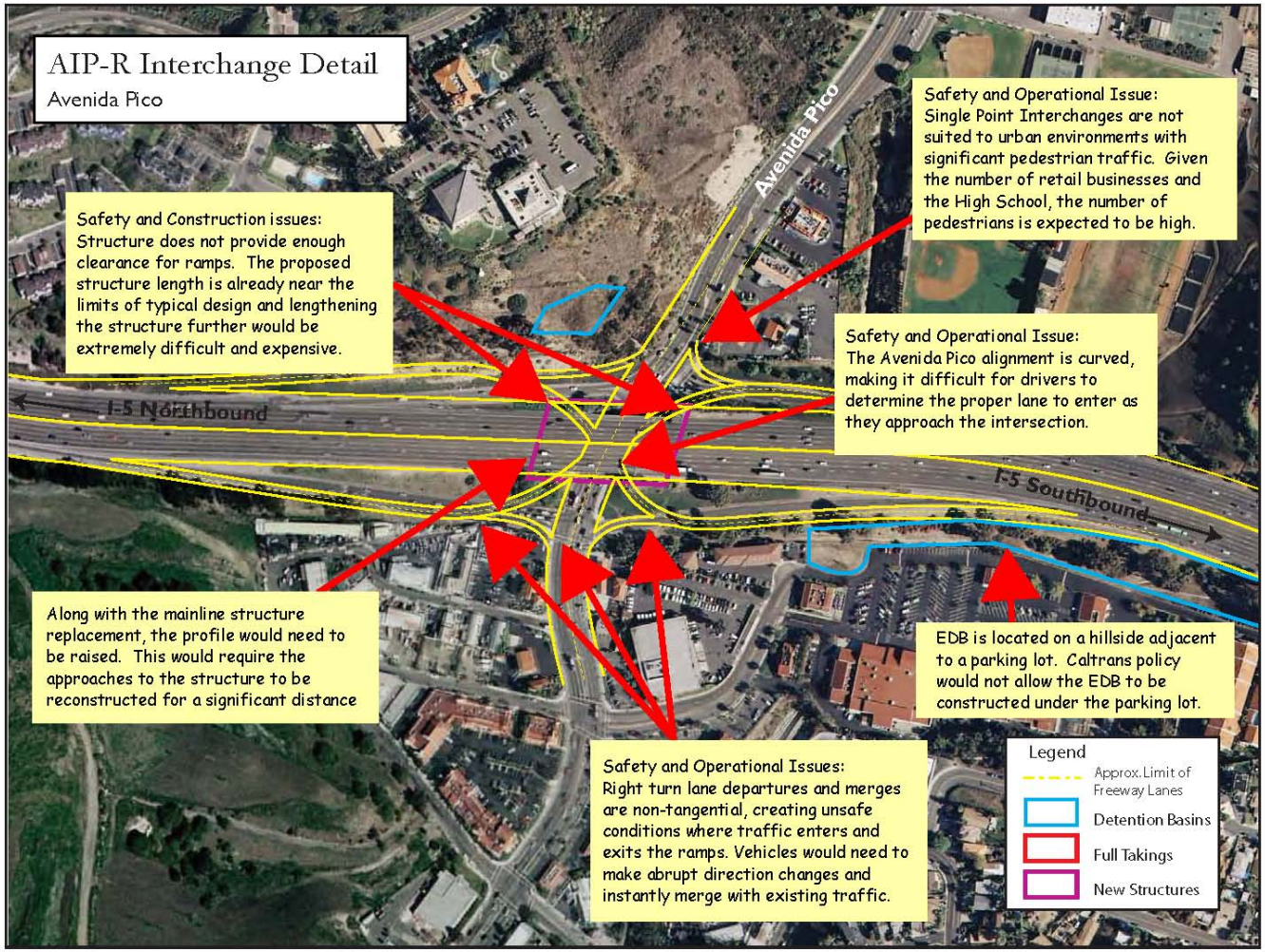


[19] http://www.sanjuancapistrano.org/Index.aspx?page=398

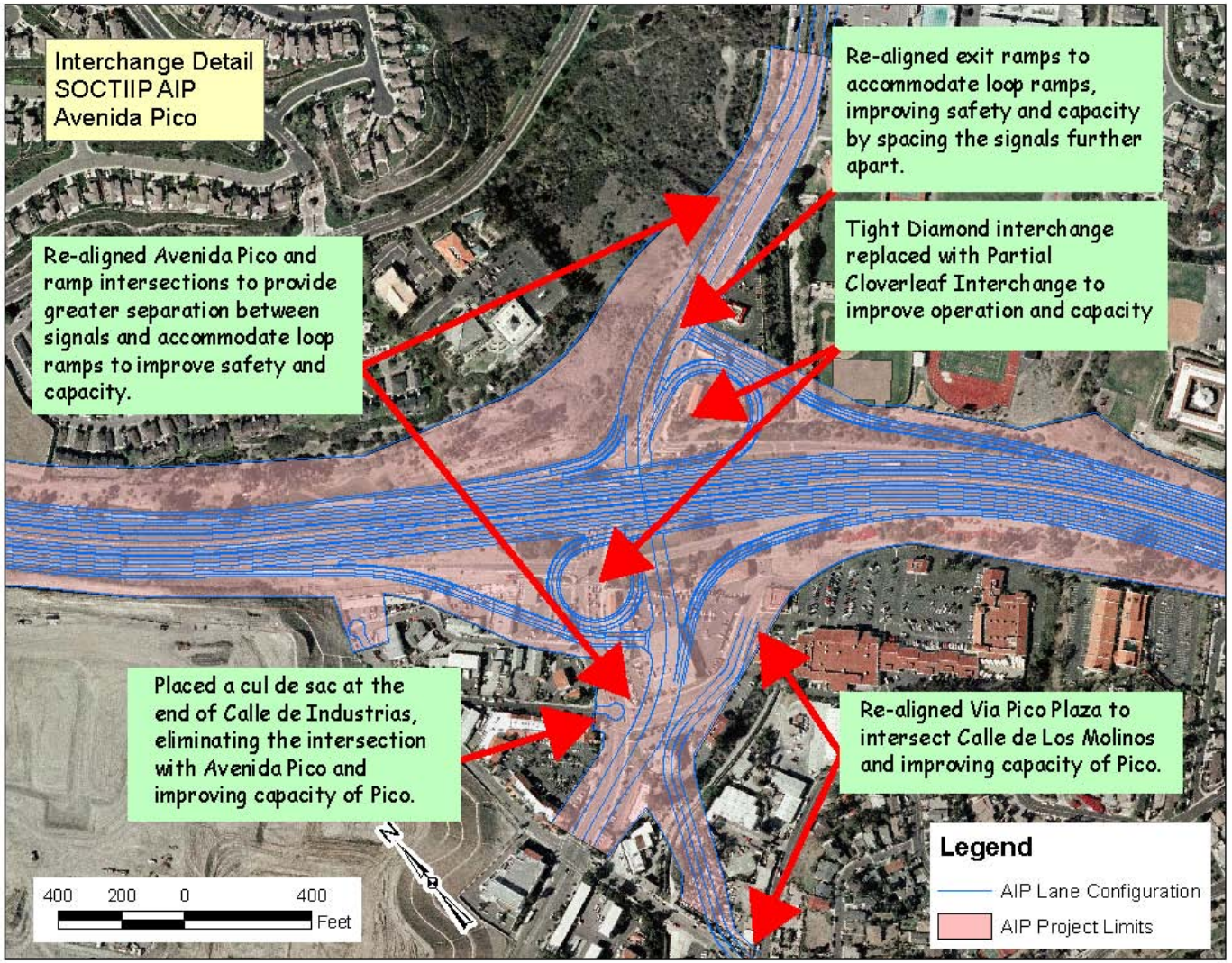
Ortega Highway



Avenida Pico



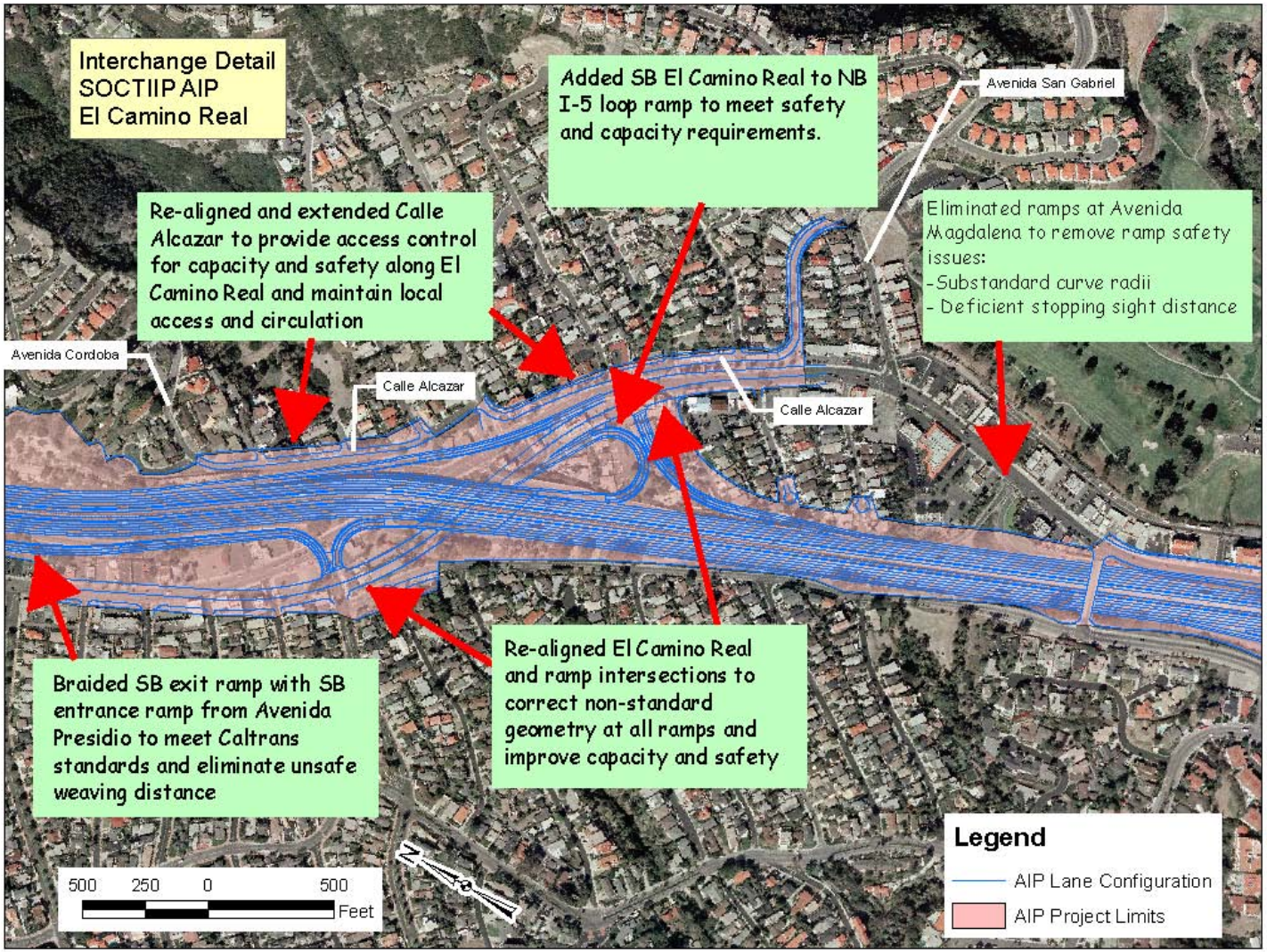
Avenida Pico



El Camino Real

AIP-R Interchange Detail
El Camino Real

El Camino Real



El Camino Real

Figure 23: AIP-R Plan for I-5 at Cross Section S, San Clemente

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- Environmental Clearance of alternatives is typically done with all alternatives being considered equal, and all based on full design standards. Evaluations of retaining walls and other refinements occur in preliminary design.
- The SMI report claims that the AIP-R Alternative is superior in terms of reducing the right of way acquisitions and improving the I-5 operations without providing any supporting data to substantiate the claim that the operational benefits remain.
- The Department believes the right of way impacts will be much greater than what is being acknowledged in the SMI report and the operational impacts will have a greater negative effect on the benefits associated with the AIP alternative.

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1. **Will Kempton Video**
2. **QUESTIONS?**